



GLAST Mass/Descoppe Status

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Launch Vehicle/Mass Status

- Budget augmentation requested for Delta II - Heavy for mass of added propulsion system.
- If budget augmentation is not received for the heavy launch vehicle, the mass must stay within the capabilities of the smaller one.
- We are performing a detailed mass contingency analysis against the smaller Delta vehicle capabilities.
 - Contingency for each subsystem based on whether mass is a new estimate, based on heritage, or already measured (using ANS/AIAA contingency guidelines).
 - A large percentage of GLAST is already measured:
 - CsI on LAT.
 - Spacecraft is from a catalog, so many components are known.



Launch Vehicle/Mass Status

(continued)

- Therefore, a smaller contingency percentage is needed.
- Biggest unknown is the spacecraft; Accommodation Studies will further refine estimates.
- If mass is managed closely, it may be possible to remain within the bounds of the smaller Delta vehicle.
- If the smaller Delta is used and the mass capability is exceeded, a mass descope goes into effect.



Mass Descope Options

- Spacecraft: after selection, spacecraft mass will be better known and options for reduction can be investigated.
- Orbit Altitude/Lifetime:
 - Reduce from 550 to 470 km.
 - Five (5) year lifetime met (Level 1 requirement); ten (10) year goal not met in 2 sigma worst case.
 - Mass savings up to 112 kg.
- Instruments:
 - Delete a layer of CsI in LAT calorimeter.
 - Delete some or all CsI in four (4) corner towers of LAT.
 - Delete some or all of GBM.
- No science priority has been assigned to descopes at this time.